

TULIN KAMAN

STONY BROOK UNIVERSITY
DEPARTMENT OF APPLIED
MATHEMATICS & STATISTICS
STONY BROOK, NY 11794-3600

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QUALIFICATIONS

- Able to handle multiple tasks simultaneously.
- Quickly absorb and retain new information and procedures.
- Highly motivated.
- Possess strong organization skills and work efficiently.

EDUCATION

STONY BROOK UNIVERSITY - Stony Brook, NY

- **Ph.D. in Applied Mathematics and Statistics**

GPA 3.8/4.0

ISTANBUL TECHNICAL UNIVERSITY Istanbul, Turkey

Graduated: May, 2004

- **M.Sc. in Computational Science and Engineering**

GPA 3.88/4.0

Advisor: Dr. Metin Demiralp

Thesis: Optimal Control, Stability and Robustness, Interaction

Time Series in Molecular Systems: Application to Harmonic Oscillator

YILDIZ TECHNICAL UNIVERSITY Istanbul, Turkey

Graduated: June, 2001

- **B.Sc. in Mathematics**

GPA 3.72/4.0

Advisor: Dr. Mehmet Ahlatcioglu

Thesis: Mathematical Models in Economics

TEACHING EXPERIENCE

Instructor:

Stony Brook University

- Applied Calculus III, (Undergraduate Course, AMS 261), Summer 2009
- Applied Calculus III, (Undergraduate Course, AMS 261), Spring 2009
- Foundations of Applied Mathematics (Graduate Course, AMS 504), Fall 2008
- Applied Calculus IV: Differential Equations (Undergraduate Course, AMS 361), Spring 2007

Teaching Assistant:

- Stony Brook University
 - Applied Combinatorics (Undergraduate Course), Fall 2006
- Istanbul Technical University, Turkey, Spring 2002 – Fall 2005
 - Introduction to Scientific and Engineering Computing (C Language & F Language).
 - Introduction to Mathematical Methods in Computational Science and Engineering.

RESEARCH EXPERIENCE

Research Assistant:

- Stony Brook University
 - Analyzing performance and scaling properties of multipurpose fluid code with capabilities for compressible and incompressible flow, MHD, phase transitions, multi-fluids, reaction diffusion and turbulence (FronTier) and working at improvement of its scaling
- Istanbul Technical University, Turkey, Spring 2002 – Fall 2005
 - Optimal Control, Stability and Robustness, Interaction Time Series in Molecular Systems: Application to Harmonic Oscillator
 - Member of the Technical Administrative Group of High Performance Computing Laboratory.
 - Training Responsible on Operating Systems and Softwares in HPC Laboratory.

TECHNICAL SKILLS

- Programming Languages:
 - C, Fortran, MPI, OPENMP, HTML, Mupad, Octave, Shell Script
 - Familiar with OpenGL, POVray, Postscript.
- Operating Systems:
 - Linux, Solaris, Unix(Several variants), Windows.
- Software:
 - Debugging Tools: Totalview, gdb(serial-parallel)
 - Performance Tools: Tuning and Analysis Utilities(TAU)
 - TeX, LaTeX, Matlab, Microsoft Office

PRESENTATIONS

- Tuning and Analysis Utilities: TAU
New York Center for Computational Science, Computer Science Seminar, June 5, 2009.
- Debugging on the Blue Gene/P System
New York Center for Computational Science, Computer Science Seminar, June 5, 2009.
- Intel Multi-core Architecture
New York Center for Computational Science, Computer Science Seminar, June 5, 2009.
- Hybrid-Multi/Core Programming
New York Center for Computational Science, Computer Science Seminar, June 5, 2009.
- Performance Analysis on Blue Gene Systems (IBM High Performance Computing Toolkit),
Blue Gene Consortium, New York Center for Computational Science, August 4, 2008.
- Performance Modeling with Tuning and Analysis Utilities (TAU),
IBM-SBU-BNL High Performance Computing Day, New York Center for Computational Science, 14 October, 2008.
- Simulations of Turbulence Combustion in a Type Ia Supernova,
Stony Brook AMS Graduate Student Conference, Stony Brook University, NY, February 14-15, 2008.

CONFERENCES / WORKSHOPS / TUTORIALS

- 23rd International Conference on Supercomputing, *IBM T.J. Watson Research Center, Yorktown Heights, NY, USA June 8-12, 2009. Sponsored by AMS, Stony Brook University*
- PSC/Intel Multi-core Programming and Performance Tuning Workshop, *Pittsburgh Supercomputing Center, March 23-26, 2009. Sponsored by Computational Science Center, Brookhaven National Laboratory.*
- Introduction to the Blue Gene/P Workshop, *Argonne Leadership Computing Facility, Argonne National Laboratory, IL, March 10-11, 2009. Sponsored by AMS, Stony Brook University*
- The Ninth DOE Advanced Computational Software (ACTS) Collection Workshop, *National Energy Research Computing Center (NERSC) at Oakland Scientific Facility, CA, August 18-22, 2008. Sponsored by DOE's Office of Science*
- Leap to Petascale - Blue Gene/P Scaling Workshop, *Argonne Leadership Computing Facility, Argonne National Laboratory, IL, July 28-31, 2008. Sponsored by AMS, Stony Brook University*

PUBLICATIONS

- "Factorization of Evolution Matrix As an Approximation Scheme in the Solution of Optimal Control Problem for One Dimensional Harmonic Oscillator Via Time-Variant Weight Functions" , Kaman T., Demiralp M. *International Conference on Numerical Analysis & Applied Mathematics, Rhodes, Greece, September 16-20, 2005.*
- "Perturbation Expansion Around the Nominal Value of External Field Amplitude in Molecular Optimal

Control Theory”, Kaman T., Demiralp M., *International Conference on Numerical Analysis & Applied Mathematics, Chalkis Greece, September 10-14, 2004.*

■ “A High Dimensional Model Representation Application to the Optimal Control of Harmonic Oscillator”, Kaman T., Demiralp M., *MATHTOOLS 2003 Fourth International Conference “Tools for Mathematical Modelling”, State Polytechnic University, Saint-Petersburg, Russia, June 23-28, 2003.*

■ “A Parametric Sensitivity Analysis for the Solution of Extrema Evaluation Problems via a Dimensionality Reducing Approximation Method.” Kaman T., Demiralp M., *Applied Numerical Analysis & Computational Mathematics Copyright 2004 Wiley-VCH Verlag, Volume 1, Issue 1, March 2004, pp. 260-269.*

ACHIEVEMENTS AND ACTIVITIES

- Member of Society for Industrial and Applied Mathematics (SIAM)
- Member of Turkish Mathematics Society.
- Member of European Student Forum (AEGEE)
- Former President of European Student Forum in Istanbul.
- Participant of Autumn AGORA 2001 of European Student Forum, *Ankara, Turkey, October 2001.*
- Participant of Balkania Regional Meeting of European Student Forum, *Thessaloniki, Greece, November, 2001.*
- Participant of Borderless Europe Final Conference of European Student Forum, *Cluj-Napoca, Romania, April 2001.*
- Organiser of International Seminar: “Future of Socrates”, *Istanbul, Turkey. February 2001.*
- Participant of Summer University about Polish culture, customs and history organized by European Student Forum, *Warsaw and Cracom, Poland, August 2000.*
- Participant of Autumn AGORA 2001 of European Student Forum, *Udine, Italy, October 2000.*